

# Recombinant Full Length Human KNG1 Protein, GST-tagged

Cat. No. KNG1-5787HF Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	Human KNG1 full-length ORF ( NP_000884.1, 1 a.a. - 427 a.a.) recombinant protein with GST-tag at N-terminal.
<b>Species</b>	Human
<b>Source</b>	In Vitro Cell Free System
<b>ProteinLength</b>	427 amino acids

**Description**

High molecular weight kininogen (HMWK) plays an important role in assembly of the plasma kallikrein (see MIM 147910)-kinin system. The KNG1 gene generates both HMWK and low molecular weight kininogen (LMWK) through alternative splicing. Both HMWK and LMWK contain an identical heavy chain consisting of protein domains 1, 2, and 3. However, HMWK contains a 56-kD light chain that consists of domains 5 and 6H, whereas LMWK contains a unique 4-kD light chain that consists of domain 5L. In both proteins, the heavy and light chains are linked by domain 4, which contains the bradykinin (BK) nonapeptide. BK, which is released by plasma kallikrein, is a potent inflammatory mediator that causes vasodilation and enhanced capillary permeability, induces pain, and stimulates production of nitric oxide and prostacyclin (see MIM 601699) from endothelial cells. During vascular damage, BK stimulates smooth muscle proliferation and intimal hypertrophy. Release of BK from HMWK generates a 2-chain HMWK, termed HMWKa, containing the heavy and light chains joined by a disulfide bond (Merkulov et al., 2008 [PubMed 18000168]).[supplied by OMIM

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Molecular Mass</b>	74.3 kDa
<b>AA Sequence</b>	<p>MKLITILFLCSRLLLSLTQESQSEEIDCNDKDLFKAVDAALKKYNSQNSNNQFVLYRI            TEATKTVGSDTFYSFKYEIKEGDCPVQSGKTWQDCEYKDAAKAATGECTATVGRS            STKFSVATQTCQITPAEGPVVTAQYDCLGCVHPISQSPDLEPILRHGIQYFNNNTQH            SSLFMLNEVKRAQRQVVAGLNFRTYSIVQTNCSKENFLFLTPDCKSLWNGDTGECT            DNAYIDIQLRIASFQNCDIYPGKDFVQPPTKICVGCPRDIPTNSPELEETLHTITKLN            AENNATFYFKIDNVKKARVQVVAGKKYFIDFVARETTCSKESNEELTESCETKKLGGQ            SLDCNAEVYVVPWEKKIYPTVNCQPLGMISLMKRPPGFSPFRSSRIGEIKEETTSHLR            SCEYKGRPPKAGAEPASEREVS</p>
<b>Applications</b>	<p>Enzyme-linked Immunoabsorbent Assay            Western Blot (Recombinant protein)            Antibody Production            Protein Array</p>
<b>Notes</b>	Best use within three months from the date of receipt of this protein.
<b>Storage</b>	Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.
<b>Storage Buffer</b>	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

## GENE INFORMATION

<b>Gene Name</b>	KNG1 kininogen 1 [ Homo sapiens ]
<b>Official Symbol</b>	KNG1
<b>Synonyms</b>	KNG1; kininogen 1; BDK, kininogen , KNG; kininogen-1; alpha 2 thiol proteinase inhibitor; bradykinin; HMWK; fitzgerald factor; high molecular weight kininogen; alpha-2-thiol proteinase inhibitor; williams-Fitzgerald-Flaujeac factor; BDK; KNG;

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA



Gene ID	3827
mRNA Refseq	NM_000893
Protein Refseq	NP_000884
MIM	612358
UniProt ID	P01042

Tel: 1-631-559-9269 1-516-512-3133

Email: [info@creative-biomart.com](mailto:info@creative-biomart.com) Fax: 1-631-938-8127

45-1 Ramsey Road, Shirley, NY 11967, USA